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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

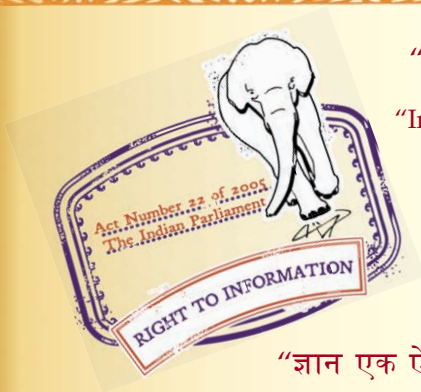
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 11967-3-6 (1989): Radio Frequency Coaxial Cables, Part 3: Solid Extruded/Tape Wrapped PTFE, Section 6: Flexible Type R 95-3-F 06 [LITD 6: Wires, Cables, Waveguides and Accessories]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

**RADIO FREQUENCY COAXIAL
CABLES — SPECIFICATION**

PART 3 SOLID EXTRUDED/TAPE WRAPPED PTFE

Section 6 Flexible Type R 95-3-F 06

भारतीय मानक

रेडियो आवृत्ति दोअक्षीय केबल — विशिष्ट

भाग 3 ठोस बहिर्वेधित/टेप चढ़े पी टी एफ ई

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BUREAU OF INDIAN STANDARDS
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FOREWORD

This Indian Standard (Part 3/Sec 6) was adopted by the Bureau of Indian Standards on 23 January 1989, after the draft finalized by Wires and Cables for Electronic Equipment Sectional Committee had been approved by the Electronics and Telecommunication Division Council.

This standard covers solid extruded/tape wrapped PTFE radio frequency cables with characteristic impedance 95 ohms and Type R 95-3-F 06.

IS 5026 : 1967 General requirements and tests for radio frequency cables (*first revision*) is a necessary adjunct to this standard.

The cable covered under this standard is useful for general purpose medium low temperature applications.

The connectors for these cables should be chosen from Series TMC and BNC.

This standard is based on MIL-C-17/950 'Military Specification Sheet — Cables, Radio Frequency, Flexible, Coaxial, 95 ohms, M17/095-RG180', issued by Department of Defence, USA.

Indian Standard

RADIO FREQUENCY COAXIAL CABLES — SPECIFICATION

PART 3 SOLID EXTRUDED/TAPE WRAPPED PTFE

Section 6 Flexible Type R 95-3-F 06

1 SCOPE

This standard (Part 3/Sec 6) specifies dimensions, constructional details and the requirements of solid extruded/tape wrapped PTFE radio frequency coaxial cables, Flexible Type R95-3-F06.

2 OUTLINE DRAWING — See Fig. 1.

3 CONSTRUCTION — See Table 1.

4 REQUIREMENTS

4.1 Dimensions, Configuration and Description — See Fig. 1 and Table 1.

Table 1 Description

Sl No.	Components	Construction Details
(1)	(2)	(3)
i)	Inner conductor	Seven strands of silver-coated, annealed-copper-covered, steel wire, each strand 0.1 mm diameter Overall diameter: 0.30 ± 0.02 mm
ii)	Dielectric core	Type F-1 or F-2: Solid extruded/tape wrapped PTFE. Diameter: 2.59 ± 0.08 mm
iii)	Outer conductor	Single braid of 0.1 mm silver-coated copper wire diameter: 3.15 mm maximum Coverage : 90% minimum Carriers : 16 Ends : 7 Picks/cm : $4.7 \pm 10\%$
iv)	Jacket	Type IX : FEP Diameter: 3.58 ± 0.10 mm

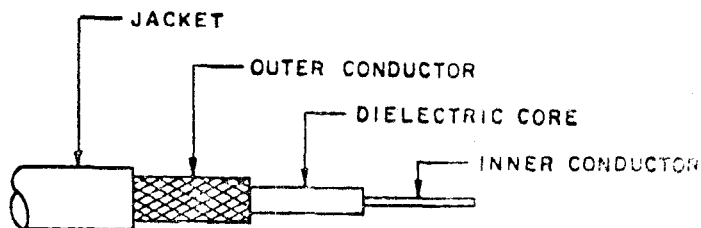


FIG. 1 CONFIGURATION

4.2 Environmental and Mechanical

<i>Tests</i>	<i>Requirements</i>	<i>Clause Reference to IS 5026 : 1987</i>
a) Visual and mechanical examination: Eccentricity	10 percent, Maximum	6.4.3
b) Adhesion of conductors: Inner conductor to core	6.7 N, Minimum 18 N, Maximum	6.4.4
c) Stress crack resistance	$230 \pm 5^{\circ}\text{C}$	6.20
d) Dimensional stability:	$200 \pm 5^{\circ}\text{C}$	6.25
i) Inner conductor from core	6.4 mm, Maximum	
ii) Inner conductor from jacket	4.8 mm, Maximum	
e) Flammability*		6.28

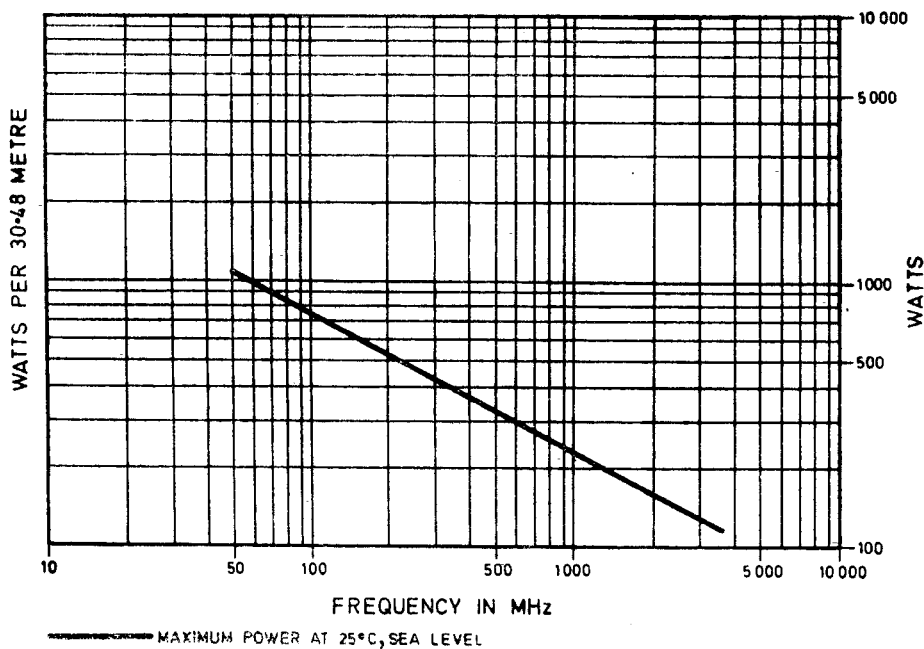
4.3 Electrical

a) Spark test	2 000 V _{rms} , Minimum	6.6
b) Voltage withstanding	2 000 V _{rms} , Minimum	6.7
c) Corona extinction voltage	1 500 V _{rms} , Minimum	6.9
d) Characteristic impedance	95 ± 5 ohms	6.10
e) Attenuation	55.8 dB/100 m, Maximum at 0.4 GHz	6.11
f) Capacitance	50.5 pF/m, Nominal	6.13

5 Engineering Information

- a) Continuous working voltage : 1 100 V_{rms}, Maximum
 - b) Operating frequency : 3 GHz, Maximum
 - c) Velocity of propagation : 69.5 percent, Nominal
 - d) Power rating : *See* Fig. 2
 - e) Operating temperature range : -55 to $+200^{\circ}\text{C}$
 - f) Inner conductor properties:
 - i) DC resistance (maximum at 20°C) : 802.0 ohms/km
 - ii) Elongation : 10 percent, Minimum
 - iii) Tensile strength : 345 MN/m², Minimum
- Mass* : 30 g/m, Maximum

*When specially required.



<i>Frequency (MHz)</i>	<i>Power (Watts)</i>
50	1 100
100	750
200	520
400	360
1 000	230
3 000	130

FIG. 2 POWER RATING

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